the journal of PORTFOLIO *management*

INVESTMENT MODELS

guest co-editor
KEES KOEDIJK

APRIL
2021

The Canadian Pension Model:
Past, Present, and Future

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Keith Ambachtsheer has been a participant in the global pensions and investments industry since 1969, and has long been recognized as one of its most original thinkers. Possibly his most defining industry contribution has been his work from the 1980s onward on the design and development of what has become globally known as "The Canadian Pension Model". In this invited article he recounts the origins of the Model, its performance record, and why he believes its wider adoption would help generate the global pension wealth needed to produce adequate retirement income for aging populations in the decades ahead.

Keith was named "One of the 30 Most Influential People in Pensions" by Pensions and Investments in the USA and has received many honours over the course of his professional career. He has authored four critically acclaimed books, most recently "The Future of Pension Management" in 2016. Keith also has strong ties to academia, with CIO naming him one of the globe's "10 Most Influential Academics in Institutional Investing". He is cited regularly in the world's leading financial publications, including the Financial Times, the Wall Street Journal, the Financial Analysts Journal, the Journal of Portfolio Management, and the Rotman International Journal of Pension Management.

KPA Advisory Services has been a trusted incubator for new thinking in the field of pensions since 1985. The monthly Ambachtsheer Letter provides strategic advice on pension design, governance, and investing to a global clientele of pension and investment organizations. Go to **https://kpa-advisory.com/** for more information. CEM Benchmarking Inc., co-founded by Keith in 1991, has earned a reputation as the premier benchmarking organization in the global pensions and investments industry.

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KEY FINDINGS

■ Pension organizations are not exempt from adopting good organization design and effective business practices.

■ Real-world application of these practices improves organizational performance.

■ Challenging demographics and financial markets make this an especially good time for wide adoption of the Canadian pension model.

ABSTRACT

This article documents the invention and rise of the Canadian pension model, starting with its intellectual foundations in the 1970s and 1980s and the creation in 1990 of the model's prototype: the Ontario Teachers' Pension Plan (OTPP). It follows OTPP's evolution into a new, innovative type of pension organization, which other Canadian pension plans started to adopt. This evolution was the subject of a 2012 feature article in *The Economist*, which further raised the profile of what is increasingly called the Canadian pension model. This notoriety raises the logical question today of whether the adoption of the model is being matched by actual superior financial performance. This article presents evidence that is indeed the case. As to the future, wider adoption of the model would help generate the retirement income needed to sustain aging societies around the world.

TOPICS

*Pension funds, developed markets, legal/regulatory/public policy, performance measurement**

The origins of the Canadian pension fund model can be traced to two historical documents. The first is Peter Drucker's 1976 book on pension fund management, *The Unseen Revolution*, in which he wrote:

> The new institutions we have created to administer and invest pension monies must have adequate management and be rendered legitimate. They must be autonomous institutions, be accountable to their constituencies, and free from any suspicion of conflict interest.

The second document is a 1987 report titled "In Whose Interest?" written by the Task Force on the Investment of Public Sector Pension Funds for Robert Nixon, treasurer of the province of Ontario at that time. It stated that

Ontario taxpayers could potentially benefit by at least $1.2 billion over a period of 10 years if all public sector pension assets were invested competitively through financial markets. Plan sponsors should ensure formal processes are in place for holding pension fund boards accountable for results. This includes board decisions whether to outsource or insource the investment function, and ensuring that internal investment managers are competitively compensated.

Twenty years after the publication of *The Unseen Revolution*, Peter Drucker would write about his 1976 book that "No book of mine was ever more on target when it was published, and no book of mine has been more totally ignored."[1] Fortunately, I did read it at the time and took its key message quoted above to heart, as evidenced in my book, *Pension Funds and the Bottom Line* (Ambachtsheer 1986). Two years later, the creation of Ontario's Task Force on the Investment of Public Sector Pension Funds opened a window to put Drucker's messages into practice, as the quote above from the task force report confirms.

In short, based on Drucker's principles, the report recommended that pension funds have a clear mission, have a strong independent governance function, and be able to attract and retain the requisite talent to be successful. The most tangible outcome of the task force's report was the creation of the Ontario Teachers' Pension Plan (OTPP). The prior plan (Teachers' Superannuation Fund) had been a government bureaucracy for decades, with all its assets "invested" in nonmarketable Ontario bonds. Treasurer Nixon and Margaret Wilson, president of the Ontario Teachers' Federation (OTF), jointly agreed to transform the teachers' pension plan bureaucracy into the Drucker model recommended by the task force.

THE BIRTH OF OTPP

Legislation was drafted to create OTPP as an arms-length entity jointly owned by its partners: the Ontario government and the OTF. As recommended in the report, a board selection protocol was agreed on to ensure the organization would benefit from strong, knowledgeable governance. The board was given a clear mandate to hire a top-notch executive team at market-competitive compensation rates to manage the organization. In quick succession, the partners appointed Gerald Bouey, the just-retired governor of the Bank of Canada, as OTPP's first board chair. Next, a representative, but highly qualified board of directors was assembled. The board hired Claude Lamoureux, a senior insurance industry executive, as OTPP's first CEO, and he in turn hired Bob Bertram, a senior corporate finance executive, as OTPP's first CIO. January 1, 1990 marked the beginning of the new organization.

The new management team almost immediately modernized the benefit administration function of the plan and swapped a large part of the returns on its USD$20 billion 100% nonmarketable Ontario bonds portfolio for equity market returns. It began to build internal investment capabilities, especially in private markets. It initiated incentive compensation for its internal investment team. It privatized Canada's largest publicly traded real estate company, Cadillac Fairview, which continues to be a wholly owned OTPP subsidiary to this day. It initiated a formal balance sheet risk-budgeting protocol. It set unusually high disclosure and reporting standards for itself. Through all this, OTPP became an increasingly visible active owner of corporate equities on a global scale, even to the point of acquiring Glass Lewis, the globe's second-largest corporate governance/proxy advisory firm. Over the 30-year period of 1990–2019,

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[1] This quote is from 1996 reprint of Drucker (1976).

OTTP has generated a remarkable net excess return of 1.9% per annum over an equal-risk passive reference portfolio according to the OTPP's 2019 annual report.[2]

OTPP's unconventional structure and active owner investment successes did not go unnoticed. The structure was copied in the creation and management of the Canada Pension Plan Investment Board in the 1990s, as well as by other major Canadian pension funds over the course of the ensuing 20 years. *The Economist* (2012) took note of these developments in an article titled "Maple Revolutionaries." According to the article, these "Canadian Pension Model" funds "have won the attention of both Wall Street, which consider them rivals, and institutional investors, which aspire to be like them."

THE PERFORMANCE QUESTION: STUDY NO. 1

With the passage of another eight years since the "Maple Revolutionaries" article, an obvious question has surfaced: Do Canadian model funds produce better investment results? The best available data to answer the question are collected by CEM Benchmarking, Inc. on pension funds and other long-horizon investment organizations. Specifically, CEM collects data on gross investment returns, the internal and external costs of running the investment operation, and a passive reference portfolio that captures the organization's investment policy as well as organizational data such as fund size, proportion managed internally, and proportion invested in private market asset classes such as real estate, infrastructure, and private equity. A key CEM performance metric is net value added (NVA), which is a fund's gross investment minus the total cost of running the investment operation minus the return on a passive reference portfolio, which captures a fund's investment policy.[2]

I used the CEM databases to conduct two studies summarized here. The first addressed the Canadian pension model performance question by selecting eight Canadian funds that

- have provided CEM with complete annual datasets over the 2006–2015 period
- have had the three key model features in place over the 10-year period (i.e., a clear mission, a strong independent governance function, and the ability to attract and retain the requisite talent to be successful)
- have had sufficient scale to insource the investment function if they so chose.

The four panels in Exhibit 1 plot the NVAs of the eight Canadian pension model funds and the NVAs of the other 132 funds for which CEM has continuous 2006–2015 data series against four metrics: (1) average proportion of assets internally managed (% internal), (2) average proportion of assets in private market investments (% privates), (3) average investment costs (cost), and (4) volatility of NVA (SD NVA).

The data displayed in the four panels suggest the following:

- Panel A confirms that the eight Canadian model organizations do indeed insource the investment function to a far greater degree than most of the other 132 funds in the 10-year CEM database (average 75% versus 17%).
- Similarly, Panel B confirms that the Canadian model funds also have a greater tendency to invest in private markets (average 23% versus 11%).

[2] Full disclosure: The author is a co-founder and a board member of CEM and continues to be a share owner.
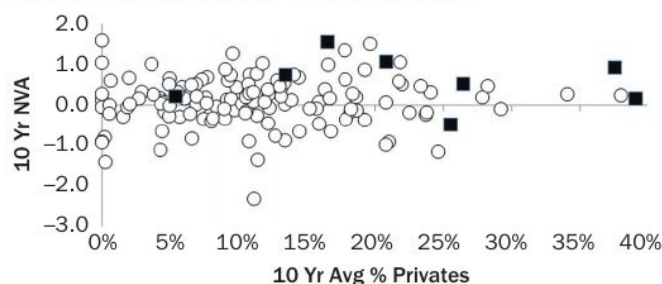
EXHIBIT 1
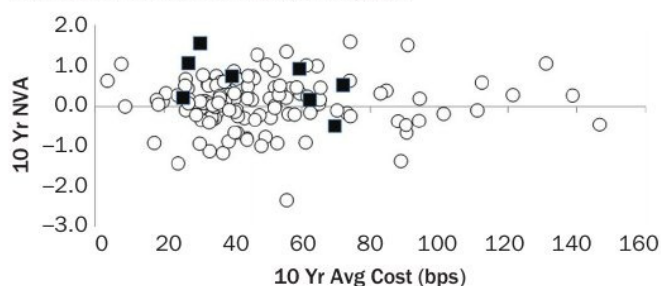### Canadian Pension Model Funds vs the CEM Universe

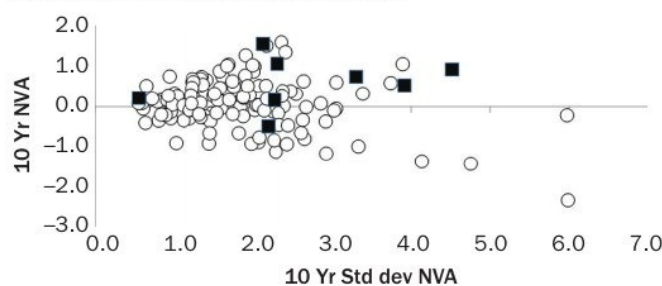Panel A: 10-Year NVA vs. 10-Year Avg % Internal
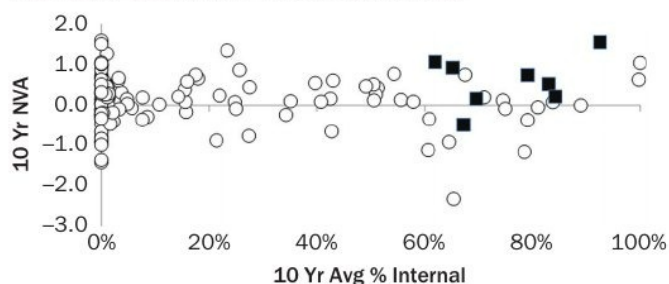
Panel B: 10-Year NVA vs. 10- Year Avg % Privates

Panel C: 10-Year NVA vs. 10-Year Avg Cost

Panel D: 10-Year NVA vs. 10-Year SD NVA

○ Universe   ■ Cdn Model

SOURCE: CEM Benchmarking, Inc.

- Panel C indicates that, despite the bias to allocate more money to private markets, the investment cost structures of the Canadian model funds generally fall in the middle of the broader fund universe experience (i.e., the costs are neither very low nor very high). Average experience is 48 bps versus 50 bps for the broader fund universe.

- Panel D indicates that the year-to-year actual return experience of the Canadian model funds versus their reference portfolios is a bit more volatile than the broader fund universe experience (average SD of NVA of 2.6% versus 1.8%).

- All four panels in Exhibit 1 indicate that the Canadian model funds were more successful at generating positive NVA over the 2006–2015 period than most of the other 132 funds. The success ratio of the former was 7 of 8, or 88%. The success ratio of the latter was 80 of 132, or 61%. The average NVA for the Canadian model funds 0.6% per year versus 0.1% per year for the broader fund universe.[3]

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[3] With its positive 10-year average NVA of 0.1%, the broader CEM fund universe of 132 funds sets a high performance bar for the Canada model funds. For example, in Australia, calculations reported by Sy (2018) for the 1997–2016 period suggest an average NVA for all its super funds of –1.3% per year, with the industry, public service, and retail sectors producing average NVAs of –0.2%, –0.8%, and –2.0%, respectively. The –2.0% NVA average for the Australian retail super funds closely matches the –2.2% per year for the actively managed US retail mutual fund sector estimated by Jack Bogle (2014) in a Financial Analysts Journal article. In Switzerland, a 2016 study by Ammann and Ehmann (2016) estimated an average –0.7% NVA for 139 Swiss pension funds over the 2010–2012 period.

EXHIBIT 2
10-Year Net Excess Returns vs. Liability Mismatch Risk
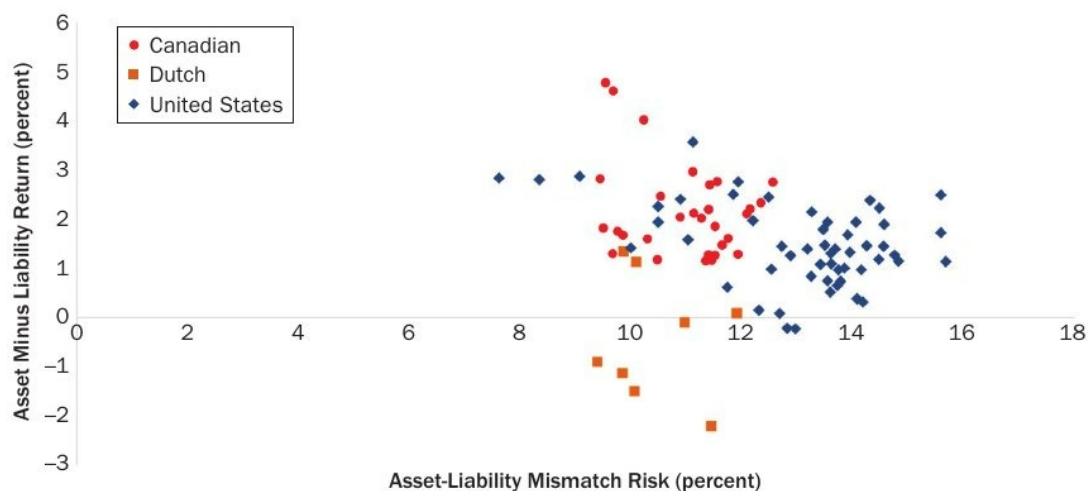
SOURCE: CEM Benchmarking, Inc.

Based on these findings, how might we place a value on the Canadian model? A simple approximation would be to take the aggregate average value of the eight funds over the 10-year period (USD$832 billion) and apply the calculated excess annual return of 0.5% relative to the broader CEM fund universe (i.e., 0.6% – 0.1%) to it. That amounts to USD$42 billion over a 10-year period—which pays a lot of pensions.

THE PERFORMANCE QUESTION: STUDY NO. 2

In the second study, the focus shifts to another relevant investment performance benchmark for pension funds: the liability portfolio. This is a bond portfolio constructed to immunize the accrued pension liabilities. Examining this portfolio allows us to answer the question of how much net excess return the fund is generating relative to this liability portfolio for taking on liability mismatch risk. Once again, CEM Benchmarking has this net excess return/liability mismatch risk data for 10-year periods. Exhibit 2 displays it for 45 US, 42 Canadian, and 8 Dutch pension funds over the 2006–2015 period.

The data displayed in Exhibit 2 suggest the following:

- On average, the 95 funds earned a positive net excess return of 1.5% per year for taking on 11.9% per year of liability mismatch risk over the 2006–2015 period.
- The Canadian funds performed best, with an average net excess return of 2.2% for taking on 11.0% per year of liability mismatch risk. Note the two top Canadian performers generated almost 5% per year of net excess return.
- The US funds generated a lower average net excess return of 1.5% for taking on a higher 13.0% per year of liability mismatch risk. Note the bulk of the US funds mismatch risk metrics were around 14%.
- The average Dutch fund underperformed its liability portfolio, with an average net excess return of −0.4% with an average liability mismatch risk of 10.4% as Euro bond yields plummeted over the course of the 2006–2015 period.

EXHIBIT 3

Average Private Equity Investment Performance by Implementation Category

Implementation Category	Gross Return	Implementation Costs	Net Returns	BM Returns	NVA	No. of Observations
Fund of Funds	13.6%	4.9%	8.7%	11.0%	−2.3%	2,200
Limited Partner	13.7%	3.3%	10.4%	11.1%	−0.7%	1,400
Insourced	12.4%	0.4%	12.0%	10.5%	+1.5%	300

SOURCE: CEM Benchmarking, Inc.

In short, the findings of Study No. 2 suggest that, over the 2006–2015 period, the Canadian funds in the CEM database generated higher levels of net excess return per unit of liability mismatch risk than their US and Dutch counterparts.

THE PERFORMANCE QUESTION: STUDY NO. 3

A third study by CEM researchers using the CEM database sheds further light on the investment performance of Canadian model pension funds. Its results were published in a *Top1000Funds* article titled "The Bright and Dark Sides of Public Equity."[4] The study divided all annual private equity returns net of expenses in the CEM databases over the 1996–2018 period into three implementation categories: (1) outsourced to a fund-of-funds manager, (2) outsourced directly to a private equity manager (i.e., a general partner) as a limited partner, and (3) insourced either directly or as a co-investor alongside a general partner. These NVA net private equity returns were benchmarked against the return on small-cap indexes of publicly listed equities.

Exhibit 3 indicates the net private equity returns in the three categories performed differently. The insourced category outperformed its benchmark by an average 1.5% per year, the LP approach underperformed by an average −0.7% per year, and the fund-of-funds approach underperformed by an average −2.3% per year. The cause was material differences in the cost of implementation. Is there a group of funds that have been leading adopters of Insourcing strategies? Panel A of Exhibit 1 provided the answer: the Canadian pension model funds. Exhibit 3 indicates that their insourcing strategies have been an important contributor to their superior investment results.

THE PERFORMANCE QUESTION: STUDY NO. 4

A 2020 study involving an international universe of 250 funds in the CEM database over the 2004–2018 period confirms the findings of the three studies summarized. Beath et al. (2020) reached five key conclusions:

1. For funds larger than USD$10 billion, Canadian funds outperformed their peers on both a return per unit of return volatility basis as well as on a return per unit of liability risk basis. These findings become more pronounced if the fund size cutoff is increased to USD$50 billion.
2. The authors identified three success pillars: (1) greater insourcing, (2) greater resource support for the investment teams managing the insourced and outsourced investment programs (e.g., IT, risk management), and (3) greater

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[4] See Heale and Weeda (2020).

use of inflation hedge assets (e.g., real estate, infrastructure, and commodity producer stocks).

3. The Canadian model facilitates taking an integrated approach to spending more on productive resources, having greater allocations to strategic hedging assets while still having lower overall management costs (57 bps) than their peers (62 bps) through greater insourcing.

4. They observed similar Canada-light trickle-down patterns in the smaller-funds segment (i.e., under USD$10 billion) of the database.

5. Finally, they noted that inflation-indexed pension liabilities in the Canadian funds are more cost-effectively hedged than nominal liabilities (e.g., in Dutch funds) because having large positions in long-term nominal bonds leaves less room for such hedge assets as real estate and infrastructure that have materially higher return prospects.

The study was not designed to compare the plan design, mission clarity, and governance effectiveness of the 250 funds in the database. Yet, Peter Drucker would argue, that is where the comparative advantage of the Canadian pension model starts.

THE PERFORMANCE QUESTION: STUDY NO. 5

Fortunately, another 2020 study by Lipshitz and Walter (2020a) integrated the plan design, mission clarity, and good governance dimensions into its conclusions and found them to be definitive value drivers for the Canadian pension funds relative to their US neighbors. For a summary of this study, see Lipshitz and Walter (2020b).

Lipshitz and Walter recounted the transformative initiatives that took place in Canada in the late 1980s that led to the creation of OTPP and eventually grew into the Canadian pension model. To highlight the resulting material differences today between public sector pension management in Canada and the United States, they compared the features and performance of Canada's 10 largest pension plans versus that of the 25 largest in the United States. The asset values of the 35 plans ranged from US$20 billion to US$353 billion. They found the following:

- The Canadian plans are fully funded compared to the average funded ratio of 78% for the US plans despite the Canadian plans using more conservative liability discount rates. If the US plans had used the Canadian plans' discount rates, they would have only been 62% funded.
- The US plans took on more equity risk (56% versus 41%), whereas the Canadian plans had materially more inflation-hedging real estate and infrastructure exposure (25% versus 10%).
- The Canadian plans generated materially higher average net investment returns over the most recent 10-year period (9.0% versus 6.8%).

As for the resulting Canadian pension model lessons for US public sector pension plans, the authors noted the following:

- Create arms-length pension plans that are jointly sponsored by governments and unions and that share risks equally between members and employers.
- Create board selection processes that lead to trustee boards that have the requisite skills and experience to oversee the management of complex pension institutions.
- Create large asset management organizations that allow pooling the assets of smaller pension plans.

- Insource the management of pension assets when scale permits and pay competitive compensation to attract top talent.
- Document and share best practices across the US public pensions sector.

In concluding their study, Lipshitz and Walter noted that the Canadian pension model emerged because "Canadian political leaders came to realize that failure to reform their public sector pension systems would hurt future beneficiaries and taxpayers alike… and the time has come for the USA to follow."

THE FUTURE

I had a chance to sit down with the 96-year-old Peter Drucker in August 2005 and tell him that his 1976 book *The Unseen Revolution* had not been totally ignored.[5] It had provided the intellectual foundation for building a new kind of pension organization that, by 2005, was beginning to show its mettle. Today, another 15 years later, evidence of the ability of the Canadian pension model to generate sustainable pension wealth continues to build at a time when, in round numbers, global pension fund assets have grown to some US$30 trillion. On top of that, a significant proportion of the US$50 trillion in global mutual fund assets are also retirement related.

With the global market value of listed stocks amounting to some US$90 trillion, it becomes clear what Peter Drucker foresaw as his "unseen revolution" back in 1976: that retirement saving pools would eventually become controlling owners of the global means of production. Ever the management philosopher, Drucker reflected on the organizational implications of making the most of this controlling-owners reality. His conclusions were threefold:

- Create stand-alone pension organizations with clear missions.
- Ensure these organizations have strong, conflict-free fiduciary governance functions.
- Ensure these organizations are not constrained from accessing the resources they need to be successful.

Through a series of groundbreaking events in the late 1980s, in 1990 OTPP would become the world's first pension organization with its design based on the Drucker principles. Inspired by OTPP's successes, other Canadian funds began to adopt the Drucker model. More recently, as *The Economist* noted, the wealth-creating power of the Canadian pension model has become recognized by thought leaders in academia, government, business, and organized labor around the world. May adoption of the model continue to grow, and may it continue to support pensioner prosperity in the decades ahead.

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[5] Peter Drucker would die three months after my 2005 visit with him.

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